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15 July 1981

# Worldwide Report

EPIDEMIOLOGY

No. 238

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COSTA RICA

HEALTH MINISTRY REPORTS INCREASE IN LEPROSY

San Jose LA REPUBLICA in Spanish 10 Jun 81 p 2

[Text] During 1980 there was an increase in the number of reported cases of leprosy, or Hanssen's disease, according to a report of the Department of Dermatology Hygiene of the Ministry of Health.

Asked about the report, Dr Harry Hidalgo, director of the department, stated that the increase in reported cases does not mean that the disease is spreading; he said the greater number of cases reported simply shows that people are losing their fears and myths concerning the disease and are seeking examinations and assistance.

For that official this is a positive sign because it coincides with the goal of the ministry, which is to acquire more control over such cases in the future, enabling it to take more effective action.

Hidalgo said that the increase started in 1979, when Las Mercedes Sanitarium was closed, and what has happened is that patients afflicted with the disease no longer fear being confined in a special institution and are appearing for examinations, thus eliminating the chances for contagion.

According to Hidalgo, Hansser's disease is the least contagious of the transmittable diseases, and in order for someone to contract it, he must be in contact with a victim who is not under treatment and who has the bacillus, and he must be in contact with the victim over a long period of time. At the same time, he said it is easily cured, in contrast with other diseases, such as diabetes and hypertension.

Hidalgo cited figures of the World Health Organization, according to which no one who has worked with patients suffering from Hanssen's disease has contracted it since 1945, when the programs to treat the victims began.

9015  
CSO: 5400/2144

CUBA

BRIEFS

DENGUE DISEASE--The Public Health Ministry [MINSAP] has reported on the emergency measures ordered by the party and government to eradicate the aedes aegypti mosquito. On 29 May 1981 the ministry learned about an abnormal situation at the Leonor Perez Pediatric Hospital in the municipality of Boyeros which was caused by the presence of a certain number of patients whose clinical symptoms consisted of high temperatures, headaches, skin eruptions and bleeding, in some cases. Due to the large number of cases, some of them were transferred to other pediatric hospitals in the city. After the preliminary investigations and due to the large number of cases demanding medical attention at the emergency rooms, especially in the Boyeros municipality, it was decided to create a working committee composed of epidemiologists, pediatricians, clinicians and virologists to investigate the epidemic outbreak. This committee reached the following preliminary conclusions: The clinical symptoms of the patients was very similar to those of the illness known as dengue. The possibility that they were cases of meningococcus or primary atypical pneumonia, was dismissed. The laboratory tests carried out on samples of serum taken from the patients as well as the capture of Aedes aegypti mosquitoes in the area made it possible for the committee to assert that it was a form of dengue, different from the one which caused the epidemics in 1977 and 1973. It is estimated that the number of persons ill with this variety of dengue throughout the entire country is somewhere around 100,000, even though the number of reported cases is 83,000. Of this, there have been 31 deaths, the majority of which have been children less than 15 years old. [Excerpts] [FL301251 Havana Domestic Service in Spanish 1045 GMT 30 Jun 81]

CSO: 5400

DOMINICA

BRIEFS

REFUSE CRISIS--Roseau, Dominica, Wednesday (CANA)--Dominica's Medical Officer of Health, Dr. William Greene, has called on residents affected by the non-collection of refuse resulting from a strike to assist with the task, in order to prevent an outbreak of any disease. In a radio announcement, Dr. Green advised Dominicans in the Roseau suburbs affected that with dengue fever and other viruses around, action now in collecting their garbage might well avert a serious epidemic. Daily paid workers at the state-run Housing Development corporation downed their tools nearly a month ago in support of their union's demand for a 45 per cent wage increase retroactive from July last year. The corporation has already stated that it is not in a position to meet the union's demands, noting that it was in arrears to the tune of over EC\$3 million. The corporation has said that it would blame the union, should there be any outbreak of disease. [Text] [Bridgetown ADVOCATE-NEWS in English 11 Jun 81 p 3]

CSO: 5400

INDONESIA

BRIEFS

MEASLES KILLS 52--Jakarta, June 5--Measles has killed 52 people in 15 villages of central Java, provincial officials said today. The officials said the measles epidemic began in January with 772 people admitted to hospital or treated at local health centres so far. Most of the victims were children under the age of five. Local health officials said lives could have been saved if vaccinations had been carried out more rapidly. --AP [Text] [Hong Kong SOUTH CHINA MORNING POST in English 6 Jun 81 p 4]

CSO: 5400/4943

ENDEMIC DISEASES STILL CAUSE CONCERN

Abidjan FRATERNITE MATIN in French 6-7-8 Jun 81 p 3

[Excerpts] On Saturday 30 May the fourth technical meeting of the various chief medical officers in charge of rural health ended with a ceremony presided over by Minister of Public Health and Population Lazent Coulibaly.

In a brief speech, Dr N'Da Konan, director of public health and population stated: "Despite the fact that the epidemiological situation still concerns us a great deal, there is no reason to worry too much about it. On the whole, public health goals set by the 1976-1980 plan have mostly been pursued, and results are encouraging. However, the struggle continues."

Having recalled the many difficulties still existing and the wish for better support from authorities at the village level, Dr N'Da Konan also stressed that "the increasingly lower percentage of popular participation in treatment and vaccination campaigns and in the response to investigating teams is preventing us from achieving good results and is wasting our resources by reopening problems we thought we had definitively defeated."

In relation to persistent endemic diseases, trypanosomiasis, leprosy, onchocerciasis and tuberculosis were mentioned. It appears that sleeping sickness is still a problem in the foci of Dalton, Bouafle and Abengourou and requires constant follow-up. As for leprosy, Dr Delormes affirmed that methods of tracking it down must be improved.

CSO: 5400/5195

## DENGUE FEVER, CHOLERA REPORTED IN WEST, EAST MALAYSIA

### Sixty Cases of Dengue

Kuala Lumpur NEW STRAITS TIMES in English 27 May 81 p 5

(Text)

PETALING JAYA, Tues. — Sixty cases of suspected dengue fever, including one fatality, have been reported in Selangor so far this month.

A Selangor Health Department spokesman, who confirmed the figures, said the death was that of a five-year-old girl from Puchong.

She died hours after admission to the Asenta Hospital here six days ago of suspected dengue fever.

"However, it takes some time to confirm a case as dengue," the

spokesman adds.

The latest suspected case was also reported from the Puchong area and the victim, a three-year-old boy, was warded in the Asenta Hospital on May 21.

The spokesman said health teams were carrying out investigations in Puchong and taking precautionary measures.

"They have already fogged the affected areas and a second fogging is due this week," he said.

The total number of dengue cases reported this year is 100, with three suspected deaths.

The other two deaths

were in Kuala Selangor last month.

Although statistics indicate a marked increase in the number of cases this month, the health authorities say there is no cause for panic.

They attribute the increase in the number of cases brought to the attention of the authorities to greater awareness on the part of the public of the need to report suspected dengue cases.

The Health Department spokesman said most of the suspected cases were subject to confirmation.

### Cholera Cases, Carriers

Kuala Lumpur NEW STRAITS TIMES in English 27 May 81 p 9

(Text)

KUCHING, Tues. — Three new cases of cholera and a carrier were confirmed in Serian district in the First Division last week.

The cases involved a seven-year-old girl from Kampung Terbat, an 11-year-old boy from Kampung Temong Bawang and a 30-year-old woman. The carrier was an eight-year-old girl.

They were all being treated at the Serian district hospital, according to a statement from the State Medical Department here today.

Medical teams had been sent to the affected areas to carry out investigations and take measures to control the disease.

The new cases brought the total number of confirmed cases to 11 and carriers to 31 since the outbreak of cholera in the First Division early last month.

The department reminded the people to observe strict personal hygiene, eat only cooked food and avoid visiting affected areas.

BRIEFS

NEW CHOLERA CASES--Kuching, Malaysia, June 6 (AP)--Two cases of cholera were reported from Kampung Kuhom in serian district this week bringing to 15 the number of cholera cases in the state since the outbreak in January this year, a government statement said Saturday. Six carriers were also detected during the period bringing to 37 the number of persons classified as carriers of the disease since the outbreak. The new victim, a 30-year-old woman and a seven-year-old boy, are in hospital, the statement said. [Text] (Taipei THE CHINA POST in English 7 Jun 81 p 2)

CSO: 5400

**MOZAMBIQUE**

**INFANT MORTALITY RATE RESEARCH PROJECT INITIATED**

**Nampula NOTICIAS in Portuguese 27 Jun 81 p 12**

[Excerpt] The Ministry of Health and the Organization of Mozambican women (OMM) are preparing a research project that will organize the collection of statistical data on infant mortality in Mozambique.

Dr Gertrudes Mendonça of the Ministry of Health stated to the MOZAMBIQUE INFORMATION AGENCY that research will begin in 5 of the country's areas on 1 August. Over a period of 2 weeks, 12,000 Mozambican women will be queried about the number of children they have borne and how many have survived.

The data collection process will continue annually for the next 5 years. According to Dr Mendonça, the project will provide Mozambique statistics on the fluctuation of infant mortality rates in different years and in various areas of the country.

Mozambique does not have a data collection system that would allow the evaluation of the success or failure of the various sanitary measures adopted in the country since independence in 1975.

The proportion of infant mortality in the country is approximately 150 deaths per 1,000 births in the first year of life.

The five areas involved in this research project include a fishing community in the northern part of the country, a rural area in the interior of the province of Niassa, the capital of Manica, the Vilanculos district--one of the least developed areas of the country--and a fifth area covering two communal villages in Nampula, one in Zambezia and another in Gaza.

Dr Mendonça stated that the diversity of the areas chosen is the most important aspect of the data collection.

The cost of the project is estimated at 400,000 meticals and will be financed by an Italian women's organization. In case the first phase of the project related to the first year is successful, the UN will grant financial assistance in the future.

CSO: \$400/\$204

## INFANT MORTALITY: CAUSES, STATISTICS REVIEWED

Raputo TIEMPO in Portuguese 31 May 81 pp 20-23

[Article by Antonio Marmelo: "Infant Mortality: Having Ten Children and Keeping Five"]

[Excerpts] Our country is among those with the highest rates of infant mortality. Although the exact figure is not known, it is estimated that 150 children of each 1,000 die before the age of 5. A very high rate of mortality, without parallel except in the most backward and underdeveloped countries.

There are many causes and of course they all result from the primary cause, the nation's underdevelopment, which in other words means poor nutrition for the majority of the population. And whether the child dies from diarrhea, an infection or from measles, he really died because he was an undernourished child.

When the child is born, and assuming he is a healthy baby, an important choice must be made immediately: Should he be given mother's milk or artificial milk? This is not an insignificant decision. Although mothers should be aware of this, they are not. By custom, most women choose to breast-feed the child, giving it to their baby without knowing any better way. Mother's milk is good, the best that can be given the baby, but after 4 months it is no longer enough to meet the child's needs. And generally the mother does not give him anything else. This is where poor nutrition begins for this baby. For the other, the one who has been fed on powdered milk, it may have begun even earlier, and this frequently happens among us.

### Measles and Hunger Cause Death

In our country women have not just one child, but many and without proper family planning, so that matters become worse. The couple does not decide when the next child will arrive. He just arrives. He may arrive while the last one is not yet 1 year old and the pregnant mother immediately ceases breast-feeding. Then the baby's feeding goes from bad to worse. Prematurely without the mother's milk, the child becomes undernourished, hence susceptible to every type of illness. These are the ones hardest hit by measles. Last year 50 percent of child deaths in the Raputo Central Hospital [RCH] were caused by measles.

## Who Should Eat Best?

Poor child nutrition originates in the poor eating habits of the population, in their precarious economic situation and in the availability of foodstuffs. After the child no longer gets the vital mother's milk, what does he eat? Farina! Manteou! And what else? A little rice, but not much! And, on holidays, he gets a morsel of meat or fish. Fruit? He eats what he can pick. The father, who is the biggest and the boss, eats the best of everything. The mother and the older children are the next best fed. What is left goes to the smallest. Usually, there is very little left. Result: poor nutrition. Prospects: very poor for these children. Let us now look at the figures from studies made in Maputo.

In a study made this year, covering 1,972 children who had Maternal and Infant Health (SMI) care, it was found that of the children under 12 months of age 22.6 percent were underweight. This percentage increased to 24 percent in children over 1 year and then fell to 12.5 percent and 10.5 percent in children over 3 and 4 years of age, respectively. Very high percentages, as can be seen.

## SMI a New Service

SMI care is new. It did not exist before independence.

Maputo, which, as the capital city, should have the highest rate of care, shows the following activity: In the first 3 months of 1981, 12,589 children came to the 17 health centers for their first weight-control appointment. This number is estimated to represent 50 percent of the children born during the 3-month period.

## Vaccination: Short-Term Solution

In regard to vaccines, the first ones can be given to the baby, but those that require more than one shot are hardly ever completed. And the vaccine can guarantee immunity only if all shots are taken. This point was greatly stressed when we visited the HCM Pediatrics Department.

Last year half of the 1,430 children who died there had measles; 12 percent, pneumonia and bronchial pneumonia; 5.1 percent, purulent meningitis; 5.1 percent, malaria; 4.9 percent, diarrhea; and 4.8 percent, tetanus (other than those dying at birth). As we can see, more effective vaccination can reduce infant mortality. This, moreover, has happened in the first 4 months of this year. Through the month of April, 33 children died with measles. Poor nutrition can be overcome only over the long term. Meanwhile, negligence in using vaccines can be overcome in the short run. It is necessary to educate mothers to take their responsibilities seriously.

## Broadening Experience

Another new and favorable development in the health centers must be mentioned: the practical classes in nutrition. On a given day of the week, mothers with underweight children and all others who wish to, meet and are taught by the SMI personnel to cook varied dishes that can be made from what is available. Then the cooked food is eaten by all, first the children and then the adults. It seems to be the sort of work the OMW [Organization of Mozambican Women] could carry out very well in

factories and neighborhoods. In fact, an agreement has been signed with the Health Ministry but, so far as we know, hardly anything has yet been done at the local level.

#### New Health Cadres

Training new health cadres will begin during the second half of this year. They will be nurses of maternal and infant health, a new category not yet in existence. At present SMI care is administered by persons diverted from other services, mainly midwives and hospital orderlies. Although the new cadre will not replace the mid-wife, he is prepared to assist deliveries. But their work will be more in pre- and post-natal care, more directed toward prevention. In 5 years it is hoped to train 750 cadres with 6 years of schooling plus 3 years of special training.

This training is part of an agreement signed late in 1978 between the Health Ministry and the UN Fund for Population Activities of the United Nations Development Program (UNDP/UNFPA). In this program the UNDP will contribute \$5,492,875.00 and the RPP (People's Republic of Mozambique) will provide \$4,251,376.90. In addition to training these cadres, the program will provide training and refresher courses for persons now working in the SMI as well as many programs and subprograms related to the SMI.

#### Some General Data About Health and Child Care in Mozambique

Population:	12,000,000 inhabitants
Population density:	15 inhabitants per square mile
Cross birth rate:	45 percent [sic; per thousand?]
Cross death rate:	19 percent [sic; per thousand?]
Growth rate:	2.6 percent
Life expectancy:	40 to 45 years
Population under 15 years of age:	47 percent
Rural population:	85 percent
Illiteracy:	60 to 85 percent
Undernourished children (over 1 year of age):	30 percent
Physicians:	377
Medical technicians:	90
Nurses and orderlies:	2,406
Preventive-health agents:	516
Midwives:	435
Hospital beds:	12,833 (1.1 per 1,000 inhabitants)
Central Hospitals:	3
Provincial Hospitals:	7
General or Rural Hospitals:	25
Psychiatric Hospitals:	4
Health Centers:	265
Health Stations:	628

## BRIEFS

MALARIA CASES--Janakpurdham, June 16--Many people are reported suffering from malaria in Dhanusha, Mahottari, Baraahi and Sindhuli districts of Janakpur zone. According to report received here those suffering from the disease include children, old men and women and young men. The disease is mostly centered in the villages bordering India and in the vicinity of the Mahendra Highway, Chure, Kamala river and Marin rivulet. RSS [Text] [Kathmandu THE MOTHERLAND in English 17 Jun 81 p 2]

13 GASTROENTERITIS DEATHS--Mahendranagar, June 9--Four persons, two each in Daiji village panchayat and Arjuni village panchayat, of Kanchanpur died of gastroenteritis recently, reports RSS. Likewise, some nine persons reportedly died of the disease in Doti, Pitambar, Jhandaboj and Kaluwapur. Meanwhile, health workers and medicines have been dispatched to Arjuni village panchayat to check spread of the disease, the sector concerned said. Daiji village panchayat has not however received medicines or health workers so far, the villagers, said. [Text] [Kathmandu THE RISING NEPAL in English 10 Jun 81 p 3]

TREATMENT OF TB PATIENTS--Birgun, June 5--Most of the inmates of Birganj jail are believed suffering from tuberculosis reports RSS. About fifty of the prisoners are under daily treatment of the disease and it is estimated that 75 percent of the total inmates are tuberculosis patients. According to a conservative estimate, 6 percent of the prisoners are leprosy-stricken and the rest are suffering from various ailments as a result of inadequate amount of blood in the system. It is said the sick prisoners kept at jails other than the capital's are forced to make-do with poor diet when their lucky counterparts in the jails in Kathmandu and other adjoining areas such as Dhulikhel and Nakhu are fed with hundred grams of meat, egg, milk, clarified butter etc. The facilities for medical treatment at the Birganj jail are yet another story of rank negligence and indifference, it is widely felt. [Text] [Kathmandu THE RISING NEPAL in English 6 Jun 81 p 4]

CSO: 5400

## SLEEPING SICKNESS OUTBREAK SAID IMMINENT

Kaduna SUNDAY NEW NIGERIAN in English 31 May 81 p 9

(Text)

THE acting Director of the Nigerian Institute for Trypanosomiasis Research (NITR), Dr. Yakubu Magaji, has confirmed that five years' absence of a survey to determine the growth or control of trypanosome and one of its carriers, the tsetse fly, has made the outbreak of sleeping sickness in the country very imminent.

Dr. Yakubu said the most threatened areas where this killer disease could strike anytime are Benue, Southern Gongola, Northern Cross River and parts of Niger State.

Other areas with less serious threats considering surveys carried out since the first Republic include the Hadejia Valley in Kano State and some parts of Ondo State.

Dr. Magaji said lack of sufficient funds was the reason for this long absence of survey.

The trypanosoma is any one of a group of minute, parasitic, flagellate protozoans inhabiting the blood of vertebrates or animals that have a backbone, usually transmitted by blood-sucking insects causing diseases such as the sleeping sickness and Nagana.

Dr. Yakubu explained that the cost of carrying out such a survey had continued to increase yearly.

While a messenger now claims ten Naira as out-of-station allowance for one night as against five naira or less some few years ago, the Senior staff claims fifteen Naira or more as against ten Naira in the past for the same period, he said.

Dr. Yakubu further explained that field work demanding 30

nights outside one's state would attract an income even higher than any of the two officers would normally earn as monthly salary. Added to his salary, and multiplied among hundreds of field workers, the figure would be too much for the Research Institute to bear.

He said the institute could not divert all its funds for this "all important" area of its work because other areas equally important would suffer similar neglect.

Dr. Yakubu told me that during the Congo disturbances in what is now Zaire eight years absence of survey to control the sleeping sickness disease caused a fatal outbreak of the epidemic disease.

"This can happen in Nigeria", Dr. Yakubu said.

Dr. Yakubu said monthly reports reaching his office from various parts of the country revealed 30 cases of the sleeping sickness disease. He said the institute has field treatment centres and in some places field men worked hand in hand with officials of local government medical clinics. The institute has also laboratories in Kaduna and Vom which carry out research work on river blindness with the aim to controlling it too.

The House of Representative Committee on Science and Technology headed by Mr. Sam Ali visited the NITR at the weekend where he advised the Research Centre to work towards solving problems and not only by identifying them.

NIGERIA

BRIEF

TSETSE BIOLOGY CONFERENCE--Latest development in tssetse biology and control as well as animal and human trypanosomiasis, their socio-cultural effects and land use in Nigeria are to be examined at a national conference scheduled for Kaduna from August 10 to 12, 1981. Organised by the Department of Parasitology and Entomology of the Ahmadu Bello University (ABU), Zaria, in conjunction with the Federal Department of Pest Control Services and the Nigerian Institute for Trypanosomiasis Research, the conference is expected to be declared open by the Minister of Science and Technology, Dr. Sylvester Ugho. The Special Adviser to the President on Security and Chairman, National Committee on Green Revolution, Dr. Bukar Shaib, is also expected to deliver a keynote address. Meanwhile, a release from the conference co-ordinator, Professor A.A. Ilemobade of the Faculty of Veterinary Medicine, A.B.U. Zaria, announced that in response to appeals for support of the economic and social significance of the conference, the Union Bank of Nigeria Limited has agreed to donate 5,000 Naira towards hosting the conference. (Text) (Kaduna NEW NIGERIAN in English 22 Jun 81 p 32)

MOSQUITO MENACE IN NSUKKA--Since the beginning and the end of the civil war the authorities of the University of Nigeria, Nsukka have given deaf ears to the plight and suffering of the inhabitants of Nsukka town and its environs over the menace of mosquitoes which have continued to multiply in millions daily in the main deposit of the sewage system in the University just behind the Police Post. It is not an over-statement but to emphasize the obvious, that the main sickness now rampant among the people living around the Campus especially the area commonly called 'Beach' is malaria. This mosquito menace has affected villages like Obukpa and Aro Uno. During this period of heat, one hardly stays outside his room after 7.00 p.m. In fact it is better for a person to be attacked by a multitude of bees than to sleep in a room where sheltex or its like was not sprayed, and it has now become a cause to live in a house which was not ceiled around Beach area. Mosquito as we all know, is the chief carrier of the bacteria called Plasmodium and if this situation is not checked with despatch things may get out of hand. (Ndubisi Asogwa) (Text) (Enugu DAILY STAR in English 9 May 81 p 11)

CSD: 5400

REPORTS ON CONJUNCTIVITIS OUTBREAK CALLED EXAGGERATED

Karachi MORNING NEWS in English 17 Jun 81 p 8

[Text] Exaggerated reports of the virus conjunctivitis which is still continuing in the city have created a certain degree of panic amongst the people.

A look at two of the hospitals in the city showed that not even a hundred people have been coming to it in the last two or three days.

Reports that over 20,000 people had come to the Jinnah Hospital for eye treatment were denied by its Director Dr B. A. Quresi yesterday.

He said that in fact only 27 people had come that day and added had 20,000 people come for eye care and cure there would have resulted an unmanageable situation.

Talking to newsmen yesterday he said that while there was seriousness enough to find out the causes of the virus conjunctivitis it was not correct to say that there was an epidemic in town.

He stressed that at least 10 per cent of the population should be suffering for it to be called an epidemic.

Dr Javed Alam Khan, Medical Superintendent of the Abbasi Shaheed Hospital and a leading eye specialist said that in the last seven days about 1400 people had come to the hospital for treatment of the virus and about 50 people had come to the clinic in the same period.

He felt that a large majority did not come to the hospitals and relied on clinics, doctors, chemists and self-treatment. He said that as a result of the prevailing situation chemists in a number of areas had run short of medicines required for eye cure.

However he said that it could be said now that the virus was subsiding.

CSO: 5400/4605

## GASTROENTERITIS AGAIN HITS KARACHI AREA

### Estimated 100 Cases

Karachi DAWN in English 23 Jun 81 pp 1, 5

[Text] Gastro-enteritis which claimed over 50 lives in the city last year has again hit the city. Two children have so far died of this disease while over 60 cases were reported to the three leading hospitals yesterday.

Two infants from Orangi Township died in Abbasi Shaheed Hospital on Sunday last while 26 children were admitted for treatment yesterday.

The areas from where gastro-enteritis cases were reported to the hospitals are: Malir, Jutland, Korangi Township, Golimar, Orangi and North Karachi Townships and old city areas, including Rangchore Lines, Ramswami, Tariq Road, Muhajir Camp, Mauripur, Kalri, Shershah, Dhobi Ghat, etc.

#### Age-Group

The children referred to the hospitals belong to the age-group of six months to 12 years. But 12 grown-up people were also registered at the Casualty Department of Civil Hospital. Twenty-six cases were admitted to the Abbasi Shaheed Hospital and 16 at the JPGMC. The exact figures from leading private hospitals were not available but it is feared that the number of such cases might reach up to 100.

The major cause of the outbreak of diarrhoea during the last two days could not be ascertained. But it is said that poor environmental conditions, low standard of hygiene, polluted water supply in the common underground tanks through KMC service line, and handpumps and tubewells, were considered to be the factors responsible for the spread of intestinal diseases in the city.

#### Main Cause

Many residents at various places in the city are getting sub-soil water through wells dug up in their areas because of shortage of water.

Generally the people of the distressed areas where water is not available in sufficient quantity, resort to tubewell and sub-soil water and become victims of such diseases. The areas from where such cases have been reported generally depend on sub-soil water supply, it is said.

In July last the epidemic had spread out in the old city area and had claimed 10 lives from one locality alone.

Observers said it was high time for the KMC to get the sub-soil water checked wherever used by residents making arrangements to provide potable water to them before it becomes too late.

Since the monsoon is near the KMC Health Department should also launch mass vaccination drive as a preventive measure observers said.

#### Reports Said 'Exaggerated'

Karachi DAWN in English 26 Jun 81 p 18

(Text) Gastroenteritis claimed seven lives in the city yesterday.

Some of the cases timely referred to the hospitals were discharged at the OPD after giving necessary medical treatment while those brought in precarious conditions were admitted for regular treatment attending doctors said.

About 100 cases were reported to the Civil Hospital, followed by 70 to the JPMC and 30 to the Abasai Shaheed Hospital.

Meanwhile, the glucose drips continue to be sold at exorbitant rates in the market.

#### PRESS NOTE

PPI adds: The Commissioner, Karachi, has issued the following Press note yesterday.

"Exaggerated reports have appeared in a section of the Press about deaths due to gastroenteritis epidemic in the city.

"Figures collected from the major hospitals of the city indicate that during the period from June 19, 1981, to June 25, 1981, the Civil Hospital admitted 31 patients out of 541 brought to the hospital and only four deaths occurred during this period. Two deaths were reported in Jinnah Post-Graduate Medical Centre, while in the Abasai Shaheed Hospital two deaths took place out of 100 patients brought to the hospital.

"KMC has been directed to ensure supply of clean water and to launch special cleanliness campaign in the areas where Gastro cases have been reported. Extensive vaccination has also been arranged in the low-lying areas of the city.

"The most effective method of preventing gastro epidemic is to use only boiled water for drinking purposes.

"Shortage in dextrose supply is being felt in the city because of non-availability of the medicine in sufficient quantities.

"Arrangements are being made to supply foreign-manufactured dextrose in adequate number to the hospitals in the city.

"Use of common salt and water can prove effective initially for treatment of patients at home till they are taken to the hospital.  
—PPI.

CSO: 5400/4605

## FOUR HUNDRED CASES OF GASTROENTERITIS REPORTED

Karachi DAWN in English 25 Jun 81 p 10

(Text)

The incidence of gastroenteritis is on the increase in various parts of the city. According to hospital sources 10 children died of this disease yesterday.

Over 400 cases of gastroenteritis were reported to three leading hospitals of the city yesterday. Of these about 200 were reported to Civil Hospital, 80 to Abbas Shaheed Hospital and over 70 to JPOMC.

The highest number of cases were reported to Civil Hospital because it caters to the need of the low-lying areas where living conditions are poor.

The areas from where most of the cases were reported include Lyari, Kalri, Kharadar, Mithadar, Ranchore Line, Parsoonji, Hubal Mandi, Orangi Township, Old Golimar, Liaquatabad and North Karachi Township.

The glucose drips, the main medicine prescribed in such

cases, has become scarce even in hospitals because of the increasing demand. The attendants are now being asked to provide drips to the hospitals for administering them to the patients. The drips are available only at an exorbitant price. One bottle of glucose drip is being sold for Rs 60.

The shortage of glucose is also felt in hospitals and saline mixed with glucose is being used to meet the demand, attending doctors claimed. If arrangements for the availability of glucose at cheaper rates were not made, the number of victims would further rise, they pointed out.

No arrangement has so far been made for vaccination at any hospital.

The doctors said that patients are brought to the hospitals in precarious condition which deteriorates further if medical aid is delayed.

Similarly, insufficient number of beds at the hospitals cause hardships to the patients.

In view of the increasing number of cases reported to the hospitals and shortage of medicines, the doctors have appealed to the philanthropists to rush help to the victims.

The water samples collected yesterday from Old Golimar, Hexer and Hassan Aulia village, were tested in KDA filter plant laboratory and its chemist's analysis showed that water is not contaminated, KMC sources told the APP yesterday.

The KDA has been asked to have bacterial tests of the water.

The Chief Engineer, KMC, Mr Zakir Ali Khan, accompanied by the Superintending Engineer, Mr Shahab, yesterday visited various areas and collected 11 samples of water whose test report will be known today.

The sources said, that water line had been disconnected in Block 3, Sub-Block 'H'. Naaim-Abbad apprehending the tap water to be contaminated Tm to twelve houses thus affected are being supplied water through tankers.

CSO: 5400/4607

PEOPLE'S REPUBLIC OF CHINA

DROP IN TUBERCULOSIS RATE REPORTED

OW160846 Beijing XINHUA in English 0832 GMT 16 Jun 81

[Text] Beijing, 16 Jun (XINHUA)--China's tuberculosis rate has dropped by 80-90 percent in urban areas and about 50 percent in rural areas since 1949, a senior health Ministry official said today. The official said a two-year national survey to establish the incidence and epidemic characteristics of pulmonary tuberculosis completed not long ago, shows TB as a cause of death has declined from the first in the early 1950s to the eighth now. The nationwide random sampling was carried out by the ministry and provincial health departments. The survey involved nearly 900 survey units, usually formed by a village or neighborhood committee, with between 1,000 and 2,000 people in each unit. More than 1.3 million people were examined and included people of all ages and in a wide variety of jobs.

The prevalence of tuberculosis helped earn China the nickname "sick man of the East" in the past, but since the founding of the People's Republic in 1949 the government has established a nationwide TB control network and trained more than 200,000 special medical workers in an effort to combat the disease. The efforts against tuberculosis include a publicity campaign on the disease, its control and treatment, and regular mass physical checkups and BCG (bacille calmette-guerin) vaccinations.

It is estimated that China has about 6.63 million patients with active TV, 0.717 percent of the population, and another 1.66 million, or 0.187 percent of the population, under observation because of TB bacilli in their sputum. More rural people suffer from the disease than urban people, the survey shows, and the incidence rises with age. The Health Ministry official said it has set up a TB center to oversee efforts by provincial and regional authorities to eradicate the disease.

CSO: 5400

SPAIN

BRIEFS

PNEUMONIA THREATENS TOURISM--Madrid, June 14--A mysterious pneumonia bug is threatening Spain's tourist industry which is the second biggest in the world, reports AFP. An unknown form of pneumonia broke out here six weeks ago, resulting in 3,000 hospital cases and 30 deaths. Travel agencies are worried that reports will frighten away tourists. Various theories of how victims catch the illness vary with some saying it is caused by bad cooking oils, while others blame disease ridden fruit, vegetables and poultry, or say it is carried by birds and dogs. There have been eight deaths in the past three days in Madrid, and the provinces of Segovia and Leon. Symptoms of this new type of pneumonia include a high temperature, headache and respiratory difficulties. [Text] [Kathmandu THE RISING NEPAL in English 15 Jun 81 p 1]

CSO: 3400

## BRIEFS

TYPE-B HEPATITIS RAMPANT--Hsinchu--The Doctors' Associations in Hsinchu and Miaoli counties recently held a joint seminar urging physicians to be more attentive to the spread of type-B hepatitis. Type-B hepatitis is prevalent in Asia and the Japanese government regards it as the most common affliction in that insular country. Japanese medical authorities have been actively carrying out a series of preventive works against it. The associations at the seminar suggested physicians take all patients' blood samples in order to detect as many cases of the disease as possible and cure it early. [Text] [Taipei THE CHINA POST in English 11 Jun 81 p 7]

MENINGITIS CARRIER--Tainan--Li Chin-chuan, director of the Pediatrics Department in Provincial Tainan Hospital, recently urged the public to take every precaution against "Banbanca Mosquitos" which are believed to carry "Japanese meningitis." He said "Japanese meningitis" is a dreadfully contagious disease and the mortality rate is high. Even though one survives the infection, Li stated, a person could still incur mental retardation of varying degrees. [Text] [Taipei THE CHINA POST in English 9 Jun 81 p 7]

C501 3400

## BRIEFS

DISEASE IN REFUGEE CAMPS--Kampuchean refugees straddled along the Thai-Kampuchean border have contracted a serious disease which doctors have failed to cure, Mithai Viravattihaya said yesterday. The family planning campaigner said that Thai doctors had discovered the disease technically called "schistosomiasis" is spreading through water along the border by a species of snail. He added that the disease, which had never been discovered elsewhere apart from Thailand, might have led to patients' deaths. The discovery was reportedly made by Mahidol University which conducted a study on the disease on Khmer people suffering the disease, he said. [Text] (Bangkok NATION REVIEW in English 1 Jul 81 p 5 BK)

CSO: 5400

## TURKEY

### PARENTS URGED TO VACCINATE CHILDREN AGAINST POLIO

Istanbul HURRIYET in Turkish 9 Jun 81 pp 1, 15

[Text] Professor Omer Bedir, Chief of the Chair for Children's Diseases at the Cerrahpasa School of Medicine, saying that an increase in occurrences of children's polio is noted during the summer months, warned "Don't let your children enter the water without having been vaccinated for polio."

Professor Omer Bedir stated that a great increase in polio is noted in the summer months and that, consequently, it is absolutely necessary that children be vaccinated up to age nine. He went on to say that: "Families should accomplish polio vaccinations at regular intervals and allow their children into the water only after this. In order for the vaccination to be given, a child must be healthy. Additionally, they must not suffer vomiting or diarrhea. The vaccination is given on an empty stomach with no eating or drinking for between 1 and 1.5 hours after the shot.

"Polio vaccinations should be accomplished three times, one after another, in the child's first year. Subsequent to this, the shots should be received at regular intervals, to mean once during the child's second year, once during the fourth year, and once at age nine."

Professor Omer Bedir noted that the very hot weather sends people to the summer resorts for water sports, particularly during the hot days. But he added that because the necessary precautions have not been taken, the sea is full of various traps as far as health is concerned. He continued as follows: "Undesirable situations arise when children in particular go in the sea without having been vaccinated. Mothers should not permit their children to go in the water if they have not been inoculated against polio.

"Furthermore, during the summer months, drinking water as well should be a subject of great concern. If there is any doubt as to the cleanliness of water it should absolutely be chlorinated."

#### Chlorination of Water

Drinking water must certainly be chlorinated if it does not come from the city water system or if there is no city water available in a particular place.

To accomplish chlorination one can use the chlorine for sale on the market. To do this, make the main solution by first pouring 120 chlorine tablets into one liter of water. Then, from this solution put three drops into one liter of water or one soup-spoonful into a bucket of water, stir, and the water is ready for drinking.

#### Every Year Five Million Children Die...

Furthermore, it was revealed that five million children in the world between the ages 1 and 5 die every year for lack of polio vaccinations.

Specialists from 58 of Turkey's cities, who will be in charge of the vaccination programs, are attending the "Seminar for the Development of Immunization Services and People's Training" which has begun in Tuzla.

Deputy Minister Doctor Enver Senordem, who is speaking at the seminar organized by the Health and Social Assistance Ministry in cooperation with the World Health Organization (WHO), pointed out the importance of immunization in modern medicine and he said that in the course of the 18-day seminar every aspect of vaccination, from its production to consumption, will be thoroughly and seriously explained.

Doctor Shafa, an Iranian who is representing WHO at the seminar, stated that, on the average, each year 18 million children are born in the world and he added the following:

"Nevertheless, five million children between the ages of 1 and 5 are dying in the world each year because they haven't been vaccinated. In relation to this, the fact that the immunization seminar, which WHO has given to nearly 100,000 doctors in 20 countries, has been set up in Turkey is both significant and encouraging. According to our research, if these efforts are seriously undertaken and allowed to continue we feel that by 1999 there will not be an unvaccinated child left in the world."

9236  
CSO: S400/5515

UGANDA

BRIEF

NEW SLEEPING SICKNESS CASES--In his speech to the council of ministers session, the minister of rehabilitation, Nasette Kuuya said there were reported new cases of sleeping sickness in Busoga and Bukedi. (Excerpt) (Kampala UGANDA TIMES in English 21 May 81 p 3)

CBO: 5400/5206

VENEZUELA

BRIEFS

TYPHOID FEVER OUTBREAK--A military spokesman has reported the detection of some 132 cases of typhoid fever among soldiers stationed at the (Conofoima) military post in San Juan de los Moros, Guarico State. The spokesman indicated that the affected soldiers have been isolated and there is no danger of an epidemic in the area. [PA281838 Caracas Radio Continente Network in Spanish 2100 GMT 26 Jun 81 PA]

CSO: 9400/2148

## BUBONIC PLAGUE IN THAI NGUYEN

### Two *Pasteurella Pestis* Strains Isolated

HANOI CONG TRINH NGHIEN CUU KHOA HOC KY THUAT NAM 1978 1979 in Vietnamese p 35

[Excerpt of article by Vu Van Long, Mountain Region College of Medicine] In April 1978, bubonic plague occurred in the area of the Thai Nguyen Iron-Steel Complex and within the city of Thai Nguyen itself. The Mountain Region Branch of the College of Medicine isolated two strains of bacteria with the characteristics of *Pasteurella pestis*:

--one strain from a male patient, 23 years old, in the Iron-Steel Complex hospital, who died 3 days after onset of disease.

--one strain from a female patient, 60 years old, in the Thai Nguyen Polyclinic, who was cured and discharged after 7 days.

### Observations On Clinical Diagnosis, Treatment

HANOI CONG TRINH NGHIEN CUU KHOA HOC KY THUAT NAM 1978, 1979 in Vietnamese p 36

[Excerpt of article by Ma Van Xuan, Mountain Region College of Medicine] In April and May 1978, bubonic plague occurred in Thai Nguyen City, concentrated in the Iron-Steel Industrial complex.

The Thai Nguyen Polyclinic admitted 85 patients. During clinical treatment, 47 out of 85 cases were diagnosed as plague. In 3 out of 47 cases: Gram staining of serum drawn from inflamed lymph gland showed ovoid bacteria taking on dark coloration on both ends. Isolates of bacteria from these 3 cases showed 1 case with bacteria containing the characteristics of *Pasteurella pestis*.

Age: Seen in all age brackets from 1 to 60.

Forms of Disease: Buboës only. Infected lungs, and blood, or hemorrhaging were not encountered. Not a single patient was admitted in a state of dizziness, vascular collapse or hypotension. Especially noteworthy, there was no mortality (which we credited to treatment with heavy doses of antibiotics right at the outset).

Buboës appeared mostly in the groin, then in the neck and armpits, etc.; were of various sizes; appeared singly or many and in one or many spots. It is to be noted that buboës were inflamed and very painful, impeding patient mobility.

There were symptoms of severe bacterial infection, and fever reaching 38.5°-40° Celsius; headache, aching all over the body, and severe fatigue.

## CHILD DEATHS HALVED IN MEASLES WAR

Salisbury THE HERALD in English 2 Jul 81 p 7

(Text)

TODDLER deaths in Salisbury were halved between 1979 and last year by the control of measles and deaths of new-born babies were kept at the level comparable to fatalities among the children of poor Englishmen, the City Medical Officer of Health, Dr Tony Davies, said in his annual report.

Dr Davies praised his staff for the way they had adapted to last year's rapid changes and the introduction of a free health service.

Since 1970, he said, his staff had concentrated on the development of effective health teams everywhere and had placed emphasis on reducing the infant mortality rate.

But if health care for all by the year 2000 was to be more than a parrot-cry then effective action was needed by the health services, the public and the city's decision-makers.

"There are two obvious priorities (for the health services): if we are to provide adequate health care for the whole population we cannot continue to operate in grossly sub-standard buildings; second, considering the numbers involved, there is an urgent need for an adequate staff establishment."

The public had a part to play. "Parents must ensure their children are adequately fed and are immunised against infectious diseases. Adults

must ensure they avoid the hazards of smoking, alcohol (including the road traffic accidents and personal violence which so commonly go with it) and obesity.

"Improved communication and co-operation between the people and the health service is essential. If the major thrust is to be in the field of primary health care it is vital that the services be used to the full by all the people."

Progress had been, and in some respects still was painfully slow. Better buildings were difficult to erect because of lack of funds and those built before 1974 were badly designed.

"Modest success has been achieved in some fields. In terms of the environment, food hygiene, sampling, water supply and the rest, there is no evidence of a decline in standards — standards which are very much better than in many tropical cities.

"In terms of personal health care the figures suggest steady improvement. We have begun the process of community participation through regular meetings between representatives of the community and the department's staff."

● Tomorrow the Herald will publish a comprehensive review of the report, the problems that face the city and the possible solutions.

CSO: 5400/5203

## OUTBREAK OF FOOT-AND-MOUTH DISEASE IN SELANGOR STATE

Kuala Lumpur BUSINESS TIMES in English 27 May 81 p 6

(Excerpts)

LAST week's outbreak of the highly contagious foot and mouth disease among some 700 head of cattle at Majuternak's central abattoir in Shah Alam has highlighted once again Malaysia's growing vulnerability to the disease.

The immediate loss from this outbreak would possibly be limited to within \$1 million, representing the cost of animals that had to be destroyed to contain the outbreak. The long term effect is that the disease would continue to be an impediment to the country's livestock industry.

The outbreak was first detected last Wednesday but official confirmation of the outbreak came only five days later along with an assurance that "things are under control."

It was not until Monday that a decision to destroy all cattle held at the abattoir was announced and a ban imposed on interstate movement of all cattle.

Some veterinarians wondered why it took one full week to introduce the full complement of routine control measures.

They maintained that within that one week the

viral disease could have spread out from the abattoir to other areas as was the case in similar outbreaks of the disease in 1978 and 1979.

There was also some concern over the manner in which the "slaughter and destroy" policy was applied. Up to yesterday all affected and in-contact cattle had yet to be buried as prescribed. This compounded the danger of the disease spreading to other areas, especially when entrails of the destroyed animals found their way into streams nearby.

Aside from Majuternak's consignment of some 700 head of cattle from Kedah, Kelantan and Australia, there are also several hundred pigs held at the same abattoir but in separate enclosures. The fate of these pigs is not immediately known.

Conventional methods for containing the outbreak of foot and mouth disease require the immediate destruction of all affected and "in-contact" animals and burying the carcasses and complete disinfection of the whole area, including the vehicles used for transporting the animals.

According to Veterinary Department records, the largest single outbreak occurred in Perak in 1938 when 1,122 head of cattle were affected. The disease also occurred in epidemic proportions in various parts of the country in earlier years.

The disease was eradicated by 1939 but 25 years later another outbreak occurred in 1963 in several parts of Perlia. This was followed by serious outbreaks in 1978. Originating in Kelantan, the outbreak spread quickly to Johore, Perak, Kedah and Perlis and it was not until the following year that the epidemic was brought under control.

All inter-state movement of animals were banned and a total ban was also imposed on the imports of animals and birds from Singapore and Thailand.

A complete ban on slaughter and sale of cattle, pigs, goats and sheep was ordered in the affected states and a massive vaccination campaign was launched. More than 130,000 animals were vaccinated.

At the height of the epidemic "search and de-

stroy" missions were mounted by the Veterinary Department to wipe out the affected and in-contact animals. Some owners moved their livestock at night to evade these teams and by doing so they only helped to spread the disease.

In all, some 18,000 animals were destroyed costing the government \$4.6 million in compensation to livestock owners. The ban on sale of meat in affected areas was lifted only after several months.

However, one year later, in August 1980, another series of outbreaks occurred in Perlia, Kedah, Taiping and Bukit Mertajam (Province Wellesley).

Officials of the Agriculture Ministry attributed last year's outbreak to the uncooperative attitude of farmers and breeders.

They alleged that the breeders did not respond fully to the vaccination campaign and that they sought help only after their animals had been infected instead of ensuring that their animals were vaccinated twice within the initial four months as prescribed.

MOZAMBIQUE

BRIEFS

RABIES VACCINATION CAMPAIGN--More than 2,152 dogs and 235 cats have already been vaccinated in the Boane, Matola and Machava localities during the rabies vaccination campaign that opened on 10 June in the province of Maputo. The number of animals vaccinated in these areas is lower in previous years. According to information provided by a source close to the campaign, this is due to the fact that there is apathy and a lack of motivation within the general population. The situation is serious enough in some areas--Boane is one of them--that the same source stated that the campaign will probably have to be repeated in this locality. [Excerpts] [Maputo NOTICIAS in Portuguese 27 Jun 81 p 2]

CSO: 5400/5204

UGANDA

BRIEFS

CATTLE DISEASE ATTACKS TESO--A large number of cattle in Soroti District are reported to have died as a result of an outbreak of foot and mouth disease. The disease is feared to have spread to other areas of Teso. District veterinary officials have attributed the cause of the disease to the Karamojong cattle which until recently, were grazing in areas along the border with Teso. "Measures are being taken to contain the disease," a veterinary official said. Farmers had been told to cooperate by observing quarantine restrictions now strongly in force. A type of cattle disease which mainly attacks lungs has broken out in north Teso areas of Obalanga, Kapelebyong and Acwa. But sources in the ministry of Animal Industry and Fisheries headquarters in Kampala said the ministry was doing everything possible to rush the drugs to control the disease. Farmers have been asked to approach the veterinary field staff in the affected areas. [Text] [Kampala UGANDA TIMES in English 20 Jun 81 p 4]

CSO: 5400/5201

## FISH EPIDEMIC IN NGHE TINH PROVINCE DISCUSSED

Hanoi KHOA HOC VA DOI SONG in Vietnamese 1 Apr 81 p 7

[Article by Engineer Ha Quang Hien: About The Fish Epidemic in Nghe Tinh]

(Text) Editor's Note. We have received many letters inquiring about the current fish epidemic in Nghe Tinh. Tran Trung Hao, Postal Box 74-79; Phan Sinh Vien, teacher at Nguyen Du Level-3 school, Nghi Xuan District; Tran Dinh Ngo, Postal Box 4T-1276; Nguyen Nam Hai; People's Committee, Hung Thai Village, Hung Nguyen District; Le van Chuyen, Ministry of Finance, and many other readers said that fish in Nghe Tinh, particularly black fish, pond catfish and a number of fresh water fish, have died en masse. The fish skin is ulcerated, fins have come off, the flesh has become rotten, and white cotton-like tufts are seen on the body of a diseased fish. Some fish have lost almost all their flesh, and only their head and bones are left. The expanding epidemic is moving toward the north.

The Ministry of Maritime Products has sent cadres into Nghe Tinh to study and solve the problem. In response to the request of our readers, Engineer Ha Quang Hien (Ministry of Maritime Products) discusses this fish disease below.

Large-scale fish epidemics frequently occur in many countries in the world. Epidemics affect chickens, hogs, oxen, rice, and even humans; hence fish epidemics are nothing new. But since fish live under water, completely away from humans, many of us who know little about fish life look upon these epidemics with surprise. Such lack of knowledge easily gives rise to unfounded, even absurd, inferences, to concern, confusion , etc.

According to our preliminary investigation, the current fish epidemic in Nghe Tinh is caused by bacteria and a number of parasites. There are primary and secondary diseases.

The primary disease is caused by bacteria. These destroy muscle and skin cells, causing ulcers on the fish body. These ulcers open the way for parasites such as Saprolegnia, Ithyophteridius, fish lice, etc., to enter the body leading to secondary diseases. The Saprolegnia infection develops into white cotton-like tufts on the fish body, and this parasite alone is enough to make fish gravely sick and die en masse.

These are common fish diseases, which in the past happened occasionally in many places; however, the Nghe Tinh epidemic is an unprecedented one in terms of scale and duration (since June 1980).

The cause of the epidemic is rather complex. The germs of disease are always present in nature, but they do not create epidemics because they are controlled by resistance from other kinds of microorganisms and substances, and neutralizing action of a number of viruses. Due to changes in environment--temperatures, pH, and mineral composition--these constraints are reduced, creating conditions favorable for the disease carrier to multiply vigorously and reach epidemic proportions. Water circulation helps an epidemic spread from one water area to another. Worse still, the moving of affected fish from one region to another further facilitates the spread. In Hung Thai (Hung Nguyen, Nghe Tinh), for instance, the people were afraid to eat diseased pond fish and on one occasion threw 2 quintals of fish into the local river, thus contributing to the spread of the disease. Moreover, fish in areas previously not affected are more prone to becoming seriously ill because they lack hereditary immunity.

It is not difficult to treat these diseases, especially those caused by Saprolegnia, Ichthyophtheridium, fish lice, etc. We can eliminate these parasites with such simple chemicals as green malachite, copper sulfate, potassium permanganate, blue methyl, etc. Against bacteria, we must use antibiotics such as chloramphenicol, terramycin, streptomycin, and so forth. But, we are now short of these antibiotics, and large-scale treatment requires a corresponding investment in both human and financial means. As a result, the cost of treating fish disease is higher than the cost of fish itself. That is why the present focus is on ways to prevent the diseases from spreading further. First of all, we must absolutely not transport fish and devices to catch and contain fish from one place to another, even within a village, a hamlet, or a cluster of houses. We must pick up all dead fish, dig pits to bury them on the spot after covering them with lime powder. Burial without treatment with lime powder will not exterminate germs.

Fish diseases do not endanger humans. However, fish which have died from disease become rotten easily, and rotten meat--even from healthy fish--always makes people sick. So we should not eat dead fish. Domestic animals can eat dead fish, but only freshly dead and slightly affected ones, and only after overcooking.

The main problem now is to restore the lost resource, step up fish breeding to produce fish for consumption in the days to come. The fish which have survived the epidemic have good resistance and immunities, so they can be used to reproduce breeding stock. We must concentrate them and rear them properly in decontaminated ponds. We must drain all other ponds, expose their bottoms to the sun, cover them with lime and treat them with bactericidal chemicals to exterminate germs.

9213  
CSO: 5400/4600

## SOUTHERN PROVINCE RUNS OUT OF CORRIDOR DISEASE CONTROL CHEMICALS

Lusaka TIMES OF ZAMBIA in English 25 Jun 81 p 2

(Excerpt) THE Veterinary and Tsetse Control Department in Southern Province has run out of chemicals for cattle dipping to control livestock bugs like corridor disease which recently hit Monze west.

Provincial veterinary officer, Dr Masivyan Balasubramaniam who confirmed the chemicals shortage in Choma on Tuesday, said he had asked Monze district council to persuade cattle owners to form dipping tank committees as part of the campaign against the tick-borne disease.

It was reported a few months ago that 2,000 heads of cattle had died from the disease in Monze.

### Reducing cases

In his report to the provincial council meeting in Livingstone last Friday, Monze governor, Mr Shadreck Mwambwa, while commending the Government for reducing cases of the corridor disease in his district, felt that the Veterinary and Tsetse Control Department had run short of drugs to fight livestock diseases.

He appealed to the department to take "positive steps" to ensure that the disease did not recur. But Dr

Balasubramaniam said the department had exhausted money for buying dipping chemicals.

While awaiting for funds, cattle owners could help control the disease by forming dipping committees which would look into the protection of their animals.

### Wipe out

Although incidences of corridor disease were being reduced, the fight against the bug was not yet over, because it took five to ten days of dipping to wipe out ticks, which carry the disease.

CSO: S400/5200

## BOTSWANA DEVELOPMENT OF FEST-AND-MOUTH VACCINE HAILED

Relaxbury THE HERALD (in English) 26 Jun 81 p 8

(Text)

### BULAWAYO

**AGRICULTURAL** biological warfare is being waged inside a suppressed working centre in Botswana. The target for the battle inside is foot-and-mouth disease, which respects no international boundaries.

Surrounded by high fencing, a rodent-proof wall and equipped with its own sewage plant, sterilized to the point of obsession, the place has the air of a "paramilitary" centre of deepest secrecy.

Inside a deadly battle is being waged to produce an effective one-shot vaccine for controlling disease outbreaks throughout the country.

And if the centre itself and the 1,000 working there have the air of a military fortress, it is because that is precisely what their project is.

Botswana has three major exports: beef, diamonds and labour.

Thirty percent of its foreign earnings come from the export of beef. In 1979, the total value of meat and meat products by the Botswana Meat Commission amounted to about \$100 million.

Because of a prior outbreak of foot-and-mouth disease, particularly in the south of the country in 1977 due to "S.A.T. 1" and "S.A.T. 2" viruses, the beef

has been exported to the European Economic Community market since then.

"What was the incentive factor in those areas?" Dr Palmer asked. "There were no outbreaks, which originated in the south - west part of Zimbabwe and during the war, there was restricted stock," said Botswana's Director of animal health, Dr John Palmer.

In the Maun-Bogibeep area where an outbreak of the S.A.T. 2 occurred, cattle were vaccinated with the imported vaccine supplied from Britain, but it completely failed to give protection.

From 1963 on, vaccines were available against the S.A.T. type of foot-and-mouth, and the method of controlling an outbreak was by isolating them with processed "live" diluted viruses.

In Botswana's circumstances, the three simultaneous outbreaks in the north in 1977 were a national catastrophe. Because in addition to the reported over 80 percent of the rural population depend on the sale of cattle for income.

With the failure of the only source of vaccine available, Dr Palmer went to the Botswana government whom agreed that an answer must be found in creating disease "resistance" of the meat.

The search led to the Puumala virus by isolating the virus with healthy cattle tongues appeared to have the answer.

Botswana decided to build its own foot-and-mouth disease vaccine laboratory in association with

the firm IFFA Merieux.

Since it would take about three years to design and build a permanent vaccine institute - it was decided to tackle the problem in two phases.

Under Phase I designed to produce limited amounts of vaccine while maintaining maximum safety of the virus, a prefabricated hermetically sealed modular laboratory was flown from France.

While work was going on in the module, a wind-proof room was built next door.

This room was equipped with all the equipment for Botswana to start industrial production of foot-and-mouth disease vaccine.

"By the end of 1978 several batches of experimental vaccines of 10,000 doses per batch had been produced," said Dr Palmer.

"Industrial production started and reached 100,000 doses per week."

"In addition of disease in Botswana and in other countries in Southern Africa, the need for vaccines was far in excess of production."

It was therefore decided to increase production. This was done by installing additional equipment to the limited space available.

The excellent cooperation between the Botswana authorities and the team from the Institute Merieux resulted the Botswana Vaccine Institute to manufacture more than 1 million doses of vaccines last year.

This was done on premises built initially to produce 3,000,000 doses a year.

Vaccine testing is done on cattle at stations where security arrangements were made for holding cattle.

The results of the tests show that vaccines are completely safe, are of a high potency, and that Botswana cattle have a satisfactory immunological response to vaccines.

Phase II - being commenced in September - is designed to provide permanent protection against foot-and-mouth disease. Botswana Vaccine

Institute, capable of producing initially 31 million doses of foot-and-mouth vaccine for use in Botswana or for export.

The head of the French experimental team at the institute, Dr Jean-Jacques Guillet, said that should they need to increase production to 50,000,000 doses a year it would be no problem.

Dr Guillet and Dr Palmer say that more vaccination campaigns in Botswana using their new vaccines had now successfully eliminated all outbreaks of foot-and-mouth disease.

### Jobs Could Boost Beef Exports

THE vaccine development in Botswana is set to give neighbouring Rhodesia hope of export industry a big boost in 1982.

Mass vaccinations of cattle in Botswana against foot-and-mouth, using the new vaccines, have eliminated the disease, it is said.

And now there may just be which have yet

Botswana into the European food export market from June this year are to make available here collected quantities of

In 1980 Rhodesia took 1,000 tons of the Botswana vaccine for its cattle. This year the figure will rise to 10,000 tons and by 1982

### Vaccines Offer New Hope for Buffalo

BOHOMAIA'S new foot-and-mouth vaccine offers new hope for Zimbabwe's threatened buffalo herds.

Plans are in hand in Zimbabwe to start a national roll in the Lowveld initially in the interests of the expected big beef export drive.

One of the first people to champion a roll between foot-and-mouth disease in cattle and buffalo, Dr Jack Palmer, Zimbabwe's Director of Animal Health, now wants firmly on this policy.

In his investigations to establish the issue of the disease more than 1,000 buffalo were transplanted and examined.

"Up to 70 percent of them had foot-and-mouth

virus in their throat and in addition to that they all had high antibodies against the disease," he said.

But there were never any clinical or clinical signs established until buffalo calves were investigated.

The researchers concluded that all buffalo in their lifetime must contract the disease and clear themselves.

Dr Palmer believes that to shoot buffalo is no real answer because, apart from the impracticality of the policy, the Botswana vaccine now offers an alternative.

The solution is to give cattle regular vaccination against foot-and-mouth disease and leave the buffalo alone.

BRIEFS

MOSQUITO SPRAYING--The Public Health Department will be using 900 gallons of oil this month to spray breeding places of mosquitoes and flies, a spokesman for the Department said yesterday. The Department's workmen would be spraying drains, canals, refuse dumps and other places where flies and mosquitoes are likely to breed. The official explained that numbers of the public might not see workmen spraying drains and trenches presently but this was due to the rainy season. He pointed out that external spraying was not effective during wet weather because the drains tend to wash the oil away. He said however that they were continuing their programme of spraying the markets. [Text] (Georgetown GUYANA CHRONICLE in English 20 May 81 p 11]

CSG: \$400

## PESTICIDE LABS TO BE ESTABLISHED IN FOUR STATES

Kaduna NEW NIGERIAN in English 21 Jun 81 p 5

(Text)

**LABORATORIES** for the control of the side effects of pesticides are to be established in four state capitals in the country.

The laboratories, to be known as Pesticide Monitoring and Environmental Quality Control stations, are to be sited in Ibadan, Sokoto, Enugu and Maiduguri, capitals of Oyo, Sokoto, Anambra and Borno states respectively.

Disclosing this in an interview with the Sunday New Nigerian in his office during the week, the Director of the Federal Department of Pest Control Services, Dr. B. M. Na'laa, said the proposed laboratories would supplement the efforts of the one in Kaduna.

Dr. Na'laa explained that the laboratory, set up under a German technical aid and a United Nations development programme, had been handed over to Nigerian authorities.

He remarked: "Since pesticides are toxic chemicals, introducing them into the environment could have a double-edged effect: while controlling pests, they could adversely affect non-target organisms including man."

The director disclosed that the department had carried out studies on new pests known as the cassava mealy bug green spiders, adding that the data were being processed now.

He also said that chemicals and

sprayers had been purchased and distributed to states invaded by the pests.

The Kaduna School for Pest Control, he said, had been expanded and would cater for students from English-speaking African states.

Speaking on the current war against the spread of pests in the country, Dr. Na'laa disclosed that 10,000 kilometres of land already cleared of tsetse flies, had been re-infested. This represents five per cent of a total of 210,000 square kilometres of land reclaimed from tsetse flies in the country. Tsetse flies are the agents of sleeping sickness.

According to the director, the setback in the war against pests in the country follows the grounding, three years ago, of the department's aerial spraying operations.

The shortage of funds as well as inadequate skilled manpower, he said, were also major constraints facing the department.

He announced that the department spent about 300,000 Naira between October and December last year on the eradication of tsetse flies from Funtua; Zaria, Jos, Bauchi and Yola.

On last year's outbreak of locusts in Mambilla in Gongola State and in Borno, Benue and Cross River States, Dr. Na'laa said that this was effectively controlled, adding that spraying teams were being trained to cope with future emergencies.

NIGERIA

BRIEFS

PESTS DESTROY CROPS--More than 60 per cent of cassava farms in Nigeria with an estimated monetary value of about N3 billion has been destroyed by pests called mealy bug and green spider mites. Consequently, the production of garri which is the major staple food in the country is facing a bleak future. This disclosure was made at Umuahia by the acting director of the National Root Crops Research Institute, Umudike, Umuahia, Dr L. S. Ene. He indicated that about 32 million tonnes of various root and tuber crops worth more than N5.2 billion were produced annually in the country, starting that any threats in terms of disease or pests to root crops should be regarded as very serious threats to mankind. [as published] Dr Ene then called for concerted efforts by the government to arrest the spread of the deadly cassava disease, remarking that root crops provide 55 per cent of the calories needed by the Nigerian populace. The acting director also disclosed that given the necessary resources, the institute could play a major role in contributing to making the nation self-sufficient in food production. [Text] [Enugu DAILY STAR in English 4 Jun 81 p 16]

CSO: 5400

DLCO TO HELP CONTROL MIGRATORY PESTS

Kampala UGANDA TIMES in English 21 May 81 p 3

[Excerpt] The Desert Locust Control Organisation of Eastern Africa (DLCO) will assist Uganda in the control of migratory pests which destroy crops and cause diseases to plants and human beings.

Sudan's minister of state for agriculture and outgoing chairman of the Organisation's council of ministers Dr Muhammed Hassan el Jack, disclosed recently in Mbale during an exclusive interview with the "Uganda Times."

Hassan told the DLCO director general, Mr Daniel Wako, minister of rehabilitation, Mr Masette Kuuya and the permanent secretary in the ministry of agriculture, Mr Jacob Ogwang, that plans to provide the necessary aid are already underway.

Uganda stands to gain from the organisation's proposed integrated programme to diversify projects and expansion of personnel and operational facilities within the financial and professional capability of the body, he said.

The minister revealed that the European Economic Community (EEC) had granted the organisation 24m/- (3 m dollars) to finance the programme.

Additional funds to complete the 50.4m/- (6.3m dollars) projects will come from the United Nations Food and Agricultural Organisation (FAO) and Centre for Overseas Pesticides Research (COPR) of the United Kingdom ministry for overseas development and administration.

Outlining some of the remarkable achievements of DLCO since its inception 20 years ago, Hassan noted that despite the pressing problems of political, economic and social nature, the organisation had successfully brought under control the menace of migratory pests.

He said that without the presence of the body, a population of over 100,000,000 people in the region would have been in danger. But the organisation had to plan in advance to array fears of an international crisis of food shortage predicted within the next twenty years.

Uganda has asked the seven-member-state organisation, which is based in Addis Ababa, Ethiopia, to apply adequate measures against tsetse flies and army worms in the country.

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